1. **Introduction**

Package query is one of the hot issues in database query processing. Unlike general set-based queries, the result of package queries is a collection of data objects that satisfy constraints collectively rather than individually. It is used in, vacation and travel planning, course selection, team formation, and meal planning. These existing algorithms are divided into several categories: exact algorithms, heuristic algorithms, and divide-and-conquer algorithms.

**1.1 Purpose**

It is necessary to design an efficient method of package queries for large volumes of data. In this, present a method called HPPQ (Heuristic Parallel Package Queries), which is based on heuristic and divide-and-conquer strategies. It optimizes the method of package queries mainly through two aspects: improving the quality of the candidate solutions and accelerating the speed of query. To address these two aspects, to propose the IPOL-HS algorithm and the HPR strategy respectively.

**1.2 Scope**

Compared the sequential replacement method with the HPPQ algorithm. For the sake of convenience we called it HPQ and compared it with the existing package queries algorithms SKETCHREFINE and HS from the following aspects:

* Different sizes of real and synthetic datasets.
* Comparative experiments on convergence.
* The impact of varying the partitioning region size threshold on the performance of algorithms.
* The impact of varying the partitioning coverage on the run time of algorithms.

**1.3 Existing System**

Heuristic algorithms do not rely on gradient information and provide excellent performance in the problem of package queries. Compared with the exact methods, heuristic algorithms may get a suboptimal solution, but they greatly reduce the run time. However, with the rapid growth in data volume, heuristic algorithms used to solve package queries also find it difficult to meet the increasing demands of efficiency. Some scholars have used divide-and-conquer algorithms to divide the problem into multiple sub-problems and improve query efficiency. But these use exact algorithms to solve the sub problems, which affect the run time to a certain extent.

**Disadvantages of Existing System**

These existing algorithms are divided into several categories: exact algorithms, heuristic algorithms, and divide-and-conquer algorithms. All Operations not in single place.

**1.4 Proposed System**

It is necessary to design an efficient method of package queries for large volumes of data. In this, we present a method called HPPQ (Heuristic Parallel Package Queries), which is based on heuristic and divide-and-conquer strategies. It optimizes the method of package queries mainly through two aspects: improving the quality of the candidate solutions and accelerating the speed of query. To address these two aspects, propose the IPOL-HS algorithm and the HPR strategy respectively.

**Advantages of Proposed System**

By combining heuristics, divide and conquer strategies put all the operations at one place.